

## **SUGGESTED COMPONENTS OF A QUALITY ASSURANCE PLAN (QAP)**

All analytical measurement service and residential measurement service participants are required to develop, operate by, and maintain QAPs. Participants with analytical capabilities (i.e., continuous radon monitors, etc.) must have a QAP that is appropriate for each device they use. The QAP must be updated whenever a participant adds a new device. A QAP must provide details, practices, and procedures unique to devices used by the participant to provide radon measurement services. Measurement service providers must have a QAP that is appropriate to any device they use to provide consumers with radon measurement services.

At a minimum, QAPs developed by service providers using analytical devices such as continuous radon monitors must address all four of the elements listed below. QAPs developed by radon measurement service providers that do not partake in any analytical services (example: radon measurement technicians who use activated charcoal devices which are analyzed by a certified laboratory) do not need to have a calibration section, however, the QAP should address the three remaining topics listed below.

1. Chain of Custody: The QAP must demonstrate custody procedures for tracking specific measurement devices. All measurements performed should have supporting documentation which provides complete chain-of-custody information including Kansas certification numbers of the laboratory and measurement service providers.
2. Calibration: Participants should describe their procedures and schedule for calibration. This ensures that results of analyses are accurate within acceptable limits and indicates when corrective actions should be taken. All continuous radon and continuous working level measurement devices must display calibration information. At a minimum, the calibration "label" should list the calibration facility, the calibration date, and the calibration expiration date. Calibration certificates or logs must be maintained for all devices used by the certified persons. Proof of calibration may be requested by KDHE at any time following certification.
3. Checks for Background: The QAP should include instructions on how to assess the effect of background radiation on measurement results.
4. Spiked, Blank, and Duplicate Samples: Depending on the measurement device or method, a QAP must include regular use of one or more of these checks for bias and precision. Spikes are samples that are exposed to a known radon concentration. Blanks are unexposed samples. Duplicates are two or more measurements with identical equipment exposed over the same time interval at the same location.